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EXAMINER	
HOLLOWAY, JASON R	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,172	MCDONALD ET AL.	
	Examiner	Art Unit	
	JASON HOLLOWAY	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *17 August 2006, 17 October 2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is a first Office Action Non-Final rejection on the merits. Claims 1-26, as originally filed, are currently pending and have been considered below.

Drawings

1. The drawings are objected to because many of the handwritten drawing labels are difficult to read and some of the hand-drawn drawings are difficult to understand. The examiner recommends the drawing labels and drawings which are not drawn with a computer aided drafting program should be clearly relabeled or redrawn. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: wire vertical tie means as claimed in claim 3 is not described in the specification.

Claim Objections

2. Claims 15,18 and 22 are objected to because of the following informalities:

In claim 15 the word "filed" in line 2 should be -- filled --.

In claim 18 there should be a "." at the end of the claim instead of a -- , --.

In claim 22, the word "planer" should be -- planar --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15-18, 23 and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 15, 18 and 25, the recitation "bottom planar sheet" and "top planar layer" in claim 15 and 25 and "front sheet" and "back sheet" in claim 18 renders the claims indefinite since the planar sheets are referred to as "interior" and "exterior" planar sheets in the specification and other claims. Changing the name of the sheets

gives the impression that the sheets of claims 15, 18 and 25 are different components, thus confusing the scope of the claims.

Claim 23 recites the limitation "said structure" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. Further, it is unclear what "structure" the Applicant is referring to. The Examiner will examine the claim with the assumption that the Applicant intends to claim the channel section is offset toward the internal wall panel as opposed to the outer wall panel.

Claims 16-17, 20-23 and 26 depend from rejected claims 15, 18 and 25 and therefore carry the same deficiency. Accordingly, the claims will be examined "as best understood."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Blum (5,136,822).

Regarding claim 14, Blum teaches a method of making a wall comprising securing an elongate strut (bottom channel plate 38) on a base element (floor 15), positioning a plurality panels (22, 24) having channels on a bottom surface on said elongate strut (38; as illustrated in figure 2), placing a top strut (36) in a top channel provided in each said panel (as illustrated in figure 2), positioning a tie rod (50) between

said first strut in a passage formed between adjacent and abutting panels (a passage between panels is formed by support column 30 of figure 1), engaging receiving and securing means in the bottom strut and securing the top of said tie rod thereby preventing said top strut from movement with respect to said bottom strut (the engagement and securing means is provided by the threaded tie rod 50 of figure 2 which is secured by nut 52).

Regarding claim 16, Blum teaches the base element comprises a floor (floor 15 of figure 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-2, 5-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum (5,136,822).

Regarding claim 1, Blum teaches a modular construction system comprising a plurality of panels (wall modules 20), said panels having peripheral frame elements defining a top channel (at top channel plate 36), a bottom channel (at bottom channel plate 38), and side channels (side channels are formed by sidewalls 32 of interior support columns 30) and an exterior planar sheet element (outside wall surface 22), and an interior planar sheet element (inside wall surface 24), and an inner core region (region 26), said inner core region filled with an insulating material that connects said

sheet elements to said frame and to one another (column 3 lines 25-36 teaches insulation filling), and further comprising:

a bottom strut (bottom channel plate 38), said bottom strut received in said bottom channel (as illustrated in figure 2),

a top strut (at top channel plate 36), said top strut received in said top channel (as illustrated in figure 2), and

vertical tie means (tie rod 50), said vertical tie means positioned between two adjacent panels and capable of connecting said top strut (36) to said bottom strut (38) and restricting the movement of said top strut and bottom strut away from one another (as illustrated in figure 2).

However, Blum fails to explicitly disclose the inner core region is filled with an adhesive bonding material. It would have been obvious to one of ordinary skill in the art to provide adhesive bonding material in the core region since many of the possible insulation materials listed in column 1 lines 64-68 of Blum have forms of the product which are adhesives (for instance polyurethane adhesive foam). Further, it would have been obvious to provide adhesive bonding material as opposed to just insulation material since doing so would create a stronger wall panel.

Regarding claim 2, Blum teaches the vertical tie means (tie rod 50) comprise elongate threaded rods (column 6 lines 47-52 teaches threaded tie rods).

Regarding claim 4, Blum teaches the channel in said panel is formed continuously around the periphery of the panel (as illustrated in figure 1, channels comprised of channel plates 36 and 38 and support columns 30 appear to extend

around the periphery of the panel, however, if the Applicant should disagree that the channels do not extend in a continuous manner around the panel, the Examiner would like to note that it would have been obvious to one of ordinary skill in the art to provide a continuous channel around the panel in order to provide a continuous passage for electrical wiring to pass through).

Regarding claim 5, Blum teaches an axial section of said strut (36, 38) comprises a "U shaped" profile (as illustrated in figure 2, the struts comprise a general U shape).

Regarding claim 6, Blum teaches the interior sheet is comprised of gypsum board (column 3 lines 22-24 teaches interior gypsum board).

Regarding claim 7, Blum teaches the exterior sheet can be comprised of stucco, masonite or other exterior building materials used in the industry, however, fails to explicitly disclose the use of cement board. Blum does teach the use of fiber cement for the interior modules. It would have been obvious to one of ordinary skill in the art to use cement board for the outside wall since it is a well known in the industry and would provide the proper characteristics for an outside environment.

Regarding claim 8, Blum teaches the insulation material comprises polyurethane (column 3 lines 31-34). However, Blum fails to explicitly disclose polyurethane foam used as an adhesive. It would have been obvious to provide an adhesive in the core region for the same reasons set forth by the Examiner in claim 1.

Regarding claim 9, Blum teaches the bottom strut and said top strut are parallel with one another (as illustrated in figures 1-2 and 5-7, top and bottom struts 36 and 38 are parallel with each other).

Regarding claim 10, Blum teaches the panels (22, 24) are polygonal (as illustrated in figure 1, the panels are rectangular).

Regarding claim 15, as best understood, Blum teaches the panels comprise a laminate construction including a bottom planar sheet (one of sheets 22 or 24), a core region filed with an insulating component (column 3 lines 25-36 teaches insulation filling) and a top planar layer.

However, Blum fails to explicitly disclose the core region is an adhesive. It would have been obvious to provide an adhesive in the core region for the same reasons set forth by the Examiner in claim 1.

9. Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Blum (5,136,822) in view of Cornett, Sr. et al. (6,161,339)

Regarding claim 3, as best understood, Blum teaches vertical tie means comprise threaded rods in tension (see claim 2 above).

However, Blum fails to explicitly disclose the vertical tie means is wire in tension.

Cornett teaches a tensioning means tensioning means in a structural tie down apparatus comprising wire rope tensioner (60 of figure 1).

Therefore, from the teaching of Cornett, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the threaded rod

tensioning means of Blum with the wire tensioning means as disclosed by Cornett in order to provide tensioning means which would not deform plastically under bending stress.

10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum (5,136,822) in view of Bertheaume et al. (6,591,556).

Regarding claim 11, Blum teaches the bottom and top struts are parallel to one another. However, Blum fails to explicitly disclose the top and bottom strut could be configured in a non-parallel manner.

Bertheaume teaches a canopy assembly in which strut members are not parallel to one another (as illustrated in figures 1, 3 and 5).

Therefore, from the teaching of Bertheaume, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the channel plates of Blum to be configured in a non-parallel manner as taught by Bertheaume in order to provide a means of providing channel members for roof sections.

Regarding claim 12, the combination of Blum and Bertheaume teaches the panels are triangular (the panels 54 of figures 1, 3 and 5 of Bertheaume are triangular).

However, the combination of Blum and Bertheaume fails to explicitly disclose the panel members are trapezoidal.

It would have been an obvious matter of choice to one of ordinary skill in the art to have modified the shape of panels of the combination of Blum and Bertheaume since such a modification would have only involved a mere change in the shape of a

component. Absent any persuasive evidence that a particular configuration of the claimed shape is significant, a change in shape is generally recognized as being within the level of ordinary skill in the art (In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)). Further, it would have been obvious to one of ordinary skill in the art to provide a trapezoidal panel for a trapezoidal roof.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blum (5,136,822) in view of Russell (3,330,084).

Regarding claim 17, Blum teaches a corner joint 23 connects two wall panels together (as illustrated in figure 1).

However, Blum fails to explicitly disclose first setting a corner panel to the base element, wherein the corner panel extends in more than one plane.

Russell teaches a wall panel corner construction in which a corner panel (special corner panel 47), wherein the corner panel extends in more than one plane (as illustrated in figure 5; column 3 line 69 to column 4 line 10 teaches the corner panel 47 connected to a foundation). Although Russell does not explicitly disclose the corner member 47 is attached to the base element first, it would have been an obvious design choice to one of ordinary skill in the art to place the corner panel first in order for two main panel sections to be set simultaneously.

Therefore, from the teaching of Russell, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wall panel of

Blum to include a devoted corner panel as taught by Russell in order to provide a stronger connection.

Regarding claim 18, Blum teaches a modular panel comprising a plurality of frame elements (30, 36, 38), a front sheet (22), a back sheet (24) and a core region (26) filled with an insulation material (column 3 lines 25-36 teaches insulation filling), said frame elements comprising a top member (36), a bottom member (38) and two lateral members (30), wherein said top and bottom members have abutting surfaces that are perpendicular to the lateral sides of said panel (as illustrated in figure 2, channel plates 36 and 38 abut the panels 22/24 and are perpendicular to support columns 30), said members further comprising channels, said channels running along the length of each member (figures 1, 2 and 4 illustrate channels which run the length of the members).

However, Blum fails to explicitly disclose the core region is an adhesive. It would have been obvious to provide an adhesive in the core region for the same reasons set forth by the Examiner in claim 1.

Regarding claim 19, Blum teaches the channel is positioned in the center of said abutting surfaces (as illustrated in figures 1 and 2, the channel formed at the bottom channel plate 38 is positioned centered in relation to the abutting surfaces of the wall panels, thus meeting the limitations of the claim).

Regarding claim 20, Blum teaches the channel is offset from the center of said abutting surfaces (as illustrated in figures 1 and 2, the channels formed at the top channel plate 36 are positioned offset from center in relation to the abutting surfaces of the wall panels, thus meeting the limitations of the claim).

Regarding claim 24, Blum teaches an elongate foam sleeve (a foam sleeve is formed at the central area 40 of the top channel plate 36, since the core 26 is made of a polyurethane foam insulation), said sleeve having means to receive said tie rods (as illustrated in figure 2, the sleeve at the central area 30 receives the tie rod 50) and said sleeve adapted to fit and be engaged by said lateral channel (30) on said panels (as illustrated in figures 1 and 2 the support columns 30 engage the sleeve portion since the tie rods are disposed within the support columns).

12. Claims 13, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum (5,136,822) in view of Prewer (4,028,855).

Regarding claim 13, Blum teaches opposite lateral sides of the frame of abutting panels are attached to one another (as illustrated in figure 1).

However, Blum fails to explicitly disclose a hook and loop fastening system, wherein said hook and loop fastening system is attached to opposite lateral sides of the frame of abutting panels.

Prewer teaches partition wall connections connected by a hook and loop fastener system (column 3 lines 34-50; as illustrated in figures 1-8).

Therefore, from the teaching of Prewer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel connections of Blum to include the hook and loop panel connections of Prewer in order to provide a stronger connection between panels while providing a simple means of detachment.

Regarding claims 21 and 22, Blum teaches the abutting surface comprises two planar sections (the edges of the wall panels 22 and 24 each have planar sections; as illustrated in figures 1-3 and 9).

However, Blum fails to explicitly disclose the abutting surface comprises a planar strip positioned adjacent to said channel and said panel further comprises a second planar strip, opposite said channel and parallel with said abutting surface and offset from said abutting surface thereby comprising an offset side and said strips are in the same plane.

Prewer teaches partition wall connections connected by strips formed from hook and loop fasteners (column 3 lines 34-50; as illustrated in figures 1-8).

Therefore, from the teaching of Prewer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel connections of Blum to include the strips formed from the hook and loop panel connections of Prewer in order to provide a stronger connection between panels while providing a simple means of detachment. The Examiner would like to point out that it would have been obvious to provide the panels of Blum as modified by Prewer with two planar strips since Blum discloses two panel sections which would each require its own strip section.

Regarding claim 23, as best understood, Blum teaches the offset side (formed at the top channel plate 36 of figures 1 and 2) is positioned internal to said structure (as illustrated in figure 1, one of the channels is disposed closest to the internal section of the wall), and is capable of receiving a tubular chase (the Examiner construes the

channel formed is capable of receiving a tubular chase, thus meeting the limitations of the claim. Further, the Examiner would like to point out that it is notoriously well known in the art to provide a chase in wall panels to pass wiring in between walls.

13. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liittschwager (6,485,800) in view of Blum (5,136,822).

Regarding claim 25, Liittschwager teaches a method of making a modular panel comprising,

cutting to create a plurality of frame members (column 3 lines 53-57 teach the frame members are trimmed to the required side), assembling a plurality of frame members together (frame members 17 as described in column 3 lines 59-68; the examiner construes the frame members are assembled together they form a rectangular shape and surround skin sheets),

placing a top and bottom planar sheet on a press (top and bottom sheets 14 and 16 are placed on a press comprising a caul as described in column 6 lines 17-22),

placing a top planar sheet on said frame member (column 6 lines 17-22 teaches the sheet members are adhered to the frame member; thus a top planar sheet is placed on the frame member),

wherein said bottom planar sheet, said frame and said top planar sheet, define an interior space (column 6 lines 23-25 teaches the panels with the frame define a cavity),

placing a top press member on said top planar sheet, wherein said top and said bottom press member maintain said top and bottom sheets a predetermined distance

from one another (column 6 lines 17-22 teaches a each panel section includes a caul member which are pressed toward one another. The caul members in conjunction with the mold 30 keep the panels in properly registered locations),

injecting adhesive between said bottom and top sheets and into said interior space (column 6 lines 23-33 teaches a foam adhesive is pumped in between panels).

However, Liittschwager fails to explicitly disclose the frame members have channels running along their respective lengths.

Blum teaches building panels having frame members (channel plates 36 and 38 and support column 30) which include channels running along their respective lengths (as illustrated in figures 1 and 3, all the frame members have channel sections).

Therefore, from the teaching of Blum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify panels of Liittschwager to include channels located in the frame members as taught by Blum in order to provide a space in which to run electrical wiring.

Regarding claim 26, the combination of Liittschwager and Blum teaches the adhesive comprises polyurethane foam (Liittschwager teaches urethane foam adhesive column 4 lines 12-18 of Liittschwager teaches urethane foam adhesive; Blum also teaches cavities filled with polyurethane foam).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See 892 form provided with this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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